

## DEPARTMENT OF THE ARMY U.S. ARMY CORPS OF ENGINEERS WASHINGTON, D.C. 20314-1000

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South Atlantic Division Regional Integration Team

Ms. Anne Norton Miller
Director
Office of Federal Activities
U.S. Environmental Protection Agency
Mail Code 2251A
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Ms. Miller:

Enclosed are copies of the Record of Decision for the three U.S. Army Corps of Engineers civil works projects listed below. These documents summarize the Agency's decision to support project implementation and close the administrative record for the Environmental Impact Statements. The Corps District office in which these projects are located will distribute the Record of Decision to those parties known to have an interest in the project.

Central and Southern Florida Project, Indian River Lagoon – South.

Central and Southern Florida Project, Modified Water Deliveries to Everglades National Park, Tamiami Trail Modifications.

Dare County Beaches (Bodie Island Portion), Hurricane Protection and Beach Erosion Control Project, Dare County, North Carolina.

Sincerely,

Donald L. Basham, P.E. Chief, South Atlantic Division Regional Integration Team

Directorate of Civil Works

3 Enclosures

## REVISED RECORD OF DECISION

## DARE COUNTY BEACHES (BODIE ISLAND PORTION) HURRICANE PROTECTION AND BEACH EROSION CONTROL PROJECT DARE COUNTY, NORTH CAROLINA

On January 15, 2002, the Director of Civil Works, U.S. Army Corps of Engineers, issued a Record of Decision for the Dare County Beaches (Bodie Island Portion) Hurricane Protection and Beach Erosion Control Project, Dare County, North Carolina. The Record of Decision was based on the Final Feasibility Report and Final Environmental Impact Statement (FEIS) for the project, dated September 2000, and associated correspondence received in response to coordination of that document.

The Chief of Engineers' Report for this project, dated December 20, 2000, required the Corps of Engineers, Wilmington District (District) to complete three tasks during the preconstruction engineering and design (PED) phase of the project. Those tasks were to:

1). undertake studies to confirm, or support revision of, the erosion damage relationships used in the project economic analysis; 2). ensure that public access to all segments of the project is consistent with law and regulation prior to initial construction and each nourishment; and 3). continue coordination with environmental resource agencies and environmental protection advocacy groups to address their concerns. The District has satisfactorily completed those tasks as reported in the Addendum to the Dare County Beaches, North Carolina (Bodie Island Portion) Final Feasibility Report and Environmental Impact Statement, dated November, 2004 (Addendum). This Record of Decision results from a review and evaluation of all documents concerning the proposed action, including the Final Feasibility Report, FEIS, Addendum, and associated correspondence.

The Record of Decision dated January 15, 2002, found the plan recommended by the District Engineer to be technically feasible, economically justified, in accordance with environmental statutes, and in the public interest. Having reviewed and evaluated all documents relevant to this project, including the November 2004 Addendum, I find that the plan recommended by the District Engineer remains technically feasible, economically justified, in accordance with environmental statutes, and in the public interest. I continue to support the plan for implementation via the normal budget process.

The project was authorized by Section 101(b)(24) of the Water Resources Development Act (WRDA) of 2000. The Feasibility Report and FEIS evaluated various structural and non-structural alternatives for providing hurricane and storm damage reduction along two segments of the 14.2 miles of the 20-mile-long shoreline of Bodie Island at the resort communities of Kitty Hawk, Kill Devil Hills, and Nags Head in Dare County, North Carolina. The North Project Area (Kitty Hawk and Kill Devil Hills) covers about 4 miles of shoreline and the South Project Area (Nags Head) covers about 10 miles of shoreline. The plan of improvement recommended in the December 20, 2000, Report of the Chief

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of Engineers is the National Economic Development (NED) plan and consists of the following features:

- Construction of approximately 14.2 miles of dune with a 25-foot-wide crest and a top elevation of 13 feet above National Geodetic Vertical Datum (NGVD) fronted by a 50-foot-wide berm with a top elevation of 7 feet above NGVD. The berm width would be 100 to 200 feet when initially constructed, and the design width of 50 feet would be achieved after wind and waves adjust the beach profile;
- Transition sections of approximately 3,000 feet are included on both ends of each segment. The southern transition for the South Project Area terminates at the Cape Hatteras National Seashore boundary;
- Planting of approximately 160 acres of dune grasses and construction of 46 dune walkovers; and
- Development and implementation of an integrated pre- and post-construction monitoring plan developed in close coordination with Federal and State resource agencies.

Approximately 12,340,000 cubic yards of sand would be placed for the initial construction with 3,890,000 cubic yards for periodic nourishment placed at approximately 3-year intervals over a 50-year project life. Beach fill material would be obtained from two offshore borrow sites encompassing an area of about seven square miles, approximately 1.5 to 3.0 miles offshore in the Atlantic Ocean.

In addition to a "no action" alternative, both non-structural and structural alternatives were evaluated for various levels of protection. These alternatives are fully described in the Final Feasibility Report and FEIS and are hereby incorporated by reference. Under the no-action alternative, there would be no Federal participation in hurricane and storm damage reduction for the project area. The "no-action" alternative does not satisfactorily address the planning objectives. Therefore, all NED benefits that would be provided by the recommended plan would be foregone. The non-structural alternatives that were evaluated for the beach communities are not economically feasible. In addition, these alternatives do not fully address the issue of the loss of land, including the existing beach, caused by long-term erosion. Therefore, non-structural measures were determined not to offer reasonable solutions for the issues identified for the Dare County beaches.

Structural beach fill alternatives consisting of a beach berm only (50 to 150 feet wide) and various combinations of berm (25 to 100 feet wide) and dune (11 to 15 feet above NGVD) were evaluated for the North and South project areas. The beach berm only plans were eliminated from further consideration because they would not effectively protect structures against short-term shoreline retreat during storms. The evaluation identified the plan with a berm 50 feet wide at elevation 7 feet above NGVD and dune with an elevation of 13 feet above NGVD as the NED plan, or the alternative with the

greatest net benefit. Several structural plans were evaluated that would involve less dredging and filling than the recommended plan. These plans would have less overall impact and would be considered environmentally preferable plans. However, they would not be as effective in achieving storm damage reduction. The relative environmental impact differences between the recommended NED plan and the smaller scale structural plans are considered minor and acceptable in order to gain the additional storm damage reduction benefits of the NED Plan. The NED Plan is considered to be the most favorable combination of cost effectiveness and environmental acceptability, incorporating features to avoid, or minimize adverse environmental effects and was, therefore selected and recommended.

Since the issuance of the 2002 Record of Decision, the District performed further analysis of the erosion damage relationships used in determining the NED plan for the project, as required by the Chief's Report. The additional analysis, included in the Addendum, addressed the impact of North Carolina Coastal Area Management Act regulations on potential erosion damages; the refinement of erosion-damage curves, based on a study by researchers following the hurricanes of 1996-1999 along the North Carolina Coast; and a sensitivity analysis of the vertical erosion indicator used in the erosion damage curves. We have reviewed the Addendum, and find that it satisfies the condition in the Chief's Report, and that the Project as recommended continues to meet the original project objectives, and continues to be the NED plan.

By letter dated December 20, 2000, the North Carolina Department of Environment and Natural Resources (DENR), Division of Coastal Management, concurred with the District's determination that the recommended project is consistent with the North Carolina Coastal Management Program. On February 2, 2001, the North Carolina DENR, Division of Water Quality, issued a Section 401 water quality certification for the recommended plan.

During the development of the September 2000 Final Feasibility Report and FEIS, the District considered the recommendations of the U.S. Fish and Wildlife Service (USFWS), as provided in their draft and final Fish and Wildlife Coordination Act Reports, as well as the views of other Federal, state, and local agencies, various interest groups, and members of the public as expressed during the scoping and public coordination processes. In letters received during Washington-level State and Agency review of the Feasibility Report and FEIS, the USFWS, U.S. Environmental Protection Agency, National Marine Fisheries Service, and State resource agencies expressed concerns regarding the adequacy of the analysis of cumulative impacts, suitability of sand for beach nourishment, effects on important fisheries and their habitats, and impacts of sediment transport to Oregon Inlet. Several environmental advocacy organizations communicated similar concerns.

Since the issuance of the 2002 Record of Decision, the District has coordinated further with environmental resource agencies and environmental protection advocacy groups, as directed by the Chief's Report. The District hosted a series of stakeholder meetings, including the representatives from the beach communities, State and Federal agencies,

and environmental interest groups. The meetings covered a full range of issues, including economics, cumulative impacts, coastal planning, environmental monitoring, real estate issues, and regional sediment management. In addition, the District engaged all interested resource agencies in the development of a comprehensive monitoring plan that would include pre- and post-project monitoring to evaluate impacts to benthic resources in the borrow area, impacts to near shore fisheries, and impacts to shorebirds. We have reviewed the report of the stakeholder meetings and development of the monitoring plan in the Addendum and find that the continued coordination with all stakeholders and development of the monitoring plan satisfies the condition for further coordination contained in the Chief's Report.

We have reviewed and evaluated documents concerning the proposed action, including the Addendum; views of other agencies; and the various practicable means to avoid or minimize environmental harm from construction of this project and find that all practicable means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan and that the recommended project is environmentally sound.

The final condition of the Chief's Report was the requirement that the District ensure that public access to all segments of the 14.2-mile-long project is consistent with law and regulation prior to initial construction and each nourishment. The local sponsor for the Project is Dare County, North Carolina. By memorandum dated November 30, 2004, included in the Addendum, Dare County has acknowledged that it understands the requirement that it provide adequate public access, and that the County will provide the required access. The Addendum also includes a map of the existing and planned access points and parking. I find that this information satisfies the condition in the Chief's report.

Having reviewed and evaluated the documents concerning the proposed action, I find that the public interest will best be served by implementing the plan of improvement identified and described in the September 2000 Final Feasibility Report and FEIS with the comprehensive monitoring plan described in the November 2004 Addendum. This Revised Record of Decision completes the National Environmental Policy Act process.

Director of Civil Works